

41

2828

PTO/SB/21 (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

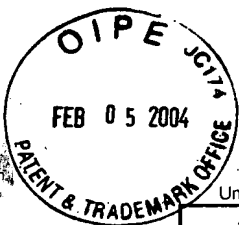
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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/078,473	
	Filing Date	February 21, 2002	
	First Named Inventor	Hoki Kwon	
	Art Unit	2828	
	Examiner Name	Dung T. Nguyen	
Total Number of Pages in This Submission	1	Attorney Docket Number	H0002992

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input checked="" type="checkbox"/> Drawing(s) (Fig. 1) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Cited References (233) PTO SB/08 (11 pages)
<div>RECEIVED FEB 10 2004 TECHNOLOGY CENTER 2800</div>		
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	MCKENNA LONG & ALDRIDGE LLP Song K. Jung
Signature	<i>Yank R. Kusloff</i> Reg. No. 42,766
Date	February 5, 2004

019E 10134 3970
MADE IN THE U.S.A.



PTO/SB/17 (10-03)
Approved for use through 7/31/2006. OMB 0651-0032
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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003, Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180.00

Complete if Known

Application Number 10/078,473
Filing Date February 21, 2002
First Named Inventor Hoki Kwon
Examiner Name Dung T. Nguyen
Art Unit 2828
Attorney Docket No. H0002992

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit Account Number

01-1125

Deposit Account Name

Honeywell International Inc.

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments

☐ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$) 0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims		Extra Claims		Fee from below		Fee Paid
Independent Claims						
Multiple Dependent						

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	180.00
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 180.00

SUBMITTED BY

Name (Print/Type) Song K. Jung

Registration No. (Attorney/Agent)

35,210

(Complete (if applicable))

Telephone (202) 496-7413

Signature

Reg. No. 42,760

Date February 5, 2004





Docket No.: H0002992
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Hoki Kwon

Customer No.: 000128

Application No.: 10/078,473

Confirmation No.: 4854

Filed: February 21, 2002

Art Unit: 2828

For: CARBON DOPED GAASSB TUNNEL
JUNCTION FOR THE APPLICATION OF
LONG-WAVELENGTH (1.3-1.55UM)
VCSEL

Examiner: Dung T. Nguyen

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INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed more than three months after the U.S. filing date, OR more than three months after the date of entry of the national stage of a PCT application, AND after the mailing date of the first Office Action on the merits, whichever occurs first, but before the mailing date of a Final Office Action or Notice of Allowance (37 CFR 1.97(c)).

A copy of each non US patent references on the PTO/SB/08 is attached.

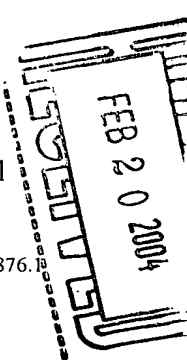
In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material

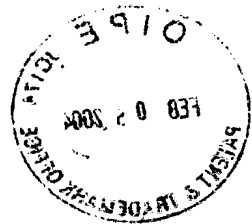
02/06/2004 HALI11 00000094 10078473

01 FC:1806

180.00 DP

DC:50260876.





01 LC:1206 180.00 DB
05V6EVS004 HRL111 00000004 10028423

information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

Our check in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p) is enclosed. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 01-1125, under Order No. H0002992-US. A duplicate copy of this paper is enclosed.

Dated: February 5, 2004

Respectfully submitted,

for

By  42,766
Song K. Jung

Registration No.: 35,210

MCKENNA LONG & ALDRIDGE LLP

1900 K Street, N.W.

Washington, DC 20006

(202) 496-7500

Attorney for Applicant

FEB 05 2004

26

PTO/SB/08A (04-03)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(USE AS MANY SHEETS AS NECESSARY)

Sheet 1 Of 8

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		US 4445218		04-24-1984	Coldren	
		US 4608697		08-26-1986	Coldren	
		US 4622672		11-11-1986	Coldren et al.	
		US 4829347		05-09-1989	Cheng et al.	
		US 4873696		10-10-1989	Coldren et al.	
		US 4896325		01-23-1990	Coldren	
		US 5045499		09-03-1991	Nishizawa et al.	
		US 5082799	A	01-21-1992	Holmstrom et al.	
		US 5245622	A	09-14-1993	Jewell et al.	
		US 5251225	A	10-05-1993	Eglash et al.	
		US 5293392	A	03-08-1994	Shieh et al.	
		US 5343487	A	08-30-1994	Scott et al.	
		US 5358880	A	10-25-1994	Lebby et al.	
		US 5365540	A	11-15-1994	Yamanaka	
		US 5392307	A	02-21-1995	Sugiyama et al.	
		US 5416044	A	05-16-1995	Chino et al.	
		US 5422901	A	06-06-1995	Lebby et al.	
		US 5468343	A	11-21-1995	Kitano	
		US 5491710	A	02-13-1996	Lo	
		US 5513204	A	04-30-1996	Jayaraman	
		US 5568504	A	10-22-1996	Kock et al.	
		US 5588995	A	12-31-1996	Sheldon	
		US 5631472	A	05-20-1997	Cunningham et al.	
		US 5693180	A	12-02-1997	Furukawa et al.	
		US 5719891	A	02-17-1998	Jewell	
		US 5719894	A	02-17-1998	Jewell et al.	

Examiner
Signature

Date
Considered

EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.01. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	2	Of	8
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COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

	US	5719895	A	02-17-1998	Jewell et al.	
	US	5729567	A	03-17-1998	Nakagawa	
	US	5732103	A	03-24-1998	Ramdani et al.	
	US	5747366	A	05-05-1998	Brillouet et al.	
	US	5754578	A	05-19-1998	Jayaraman	
	US	5757833	A	05-26-1998	Arakawa et al.	
	US	5805624	A	09-08-1998	Yang et al.	
	US	5809051	A	09-15-1998	Oudar	
	US	5815524	A	09-29-1998	Ramdani et al.	
	US	5818862	A	10-06-1998	Salet	
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	US	5825796	A	10-20-1998	Jewell et al.	
	US	5835521	A	11-10-1998	Ramdani et al.	
	US	5877038	A	03-02-1999	Coldren et al.	
	US	5883912	A	03-16-1999	Ramdani et al.	
	US	5898722	A	04-27-1999	Ramdani et al.	
	US	5903586	A	05-11-1999	Ramdani et al.	
	US	5912913	A	06-15-1999	Kondow et al.	
	US	5943357	A	08-24-1999	Lebby et al.	
	US	5943359	A	08-24-1999	Ramdani et al.	
	US	5956363	A	09-21-1999	Lebby et al.	
	US	5960018	A	09-28-1999	Jewell et al.	
	US	5974073	A	10-26-1999	Canard et al.	
	US	5978398	A	11-02-1999	Ramdani et al.	
	US	5985683	A	11-16-1999	Jewell	
	US	5991326	A	11-23-1999	Yuen et al.	
	US	6021147	A	02-01-2000	Jiang et al.	
	US	6046065	A	04-04-2000	Goldstein et al.	
	US	6049556	A	04-11-2000	Sato	
	US	6052398	A	04-18-2000	Brillouet et al.	
	US	6057560	A	05-02-2000	Uchida	
	US	6061380	A	05-09-2000	Jiang et al.	

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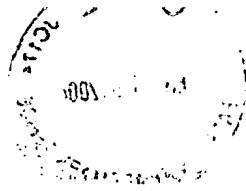
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Sheet 3 Of 8

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

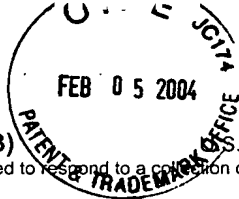
	US	6061381	A	05-09-2000	Adams et al.	
	US	6121068	A	09-19-2000	Ramdani et al.	
	US	6127200	A	10-03-2000	Ohiso et al.	
	US	6148016	A	11-14-2000	Hegblom et al.	
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	US	6226349	B2	04-25-2003	Cox et al.	
	US	6252896	B1	06-26-2001	Tan et al.	
	US	6314118	B1	11-06-2001	Jayaraman et al.	
	US	6341137	B1	01-22-2002	Jayaraman et al.	
	US	6359920	B1	03-19-2002	Jewell et al.	
	US	6362069	B1	03-26-2002	Forrest et al.	
	US	6366597	B1	04-02-2002	Yuen et al.	
	US	6372533	B2	04-16-2002	Jayaraman et al.	
	US	6424669	B1	07-23-2002	Jiang et al.	
	US	6434180	B1	08-13-2002	Cunningham	
	US	6542530	B1	04-01-2003	Shieh et al.	
	US	6546031	B1	04-08-2003	Jewell et al.	
	US	6566688	B1	04-20-2003	Zhang et al.	
	US	6556602	B2	04-29-2003	Rice et al.	
	US	6580741	B2	06-17-2003	Jiang et al.	
	US	6603784	B1	08-05-2003	Johnson	
	US	6621842	B1	09-16-2003	Dapkus	
	US	6621843	B2	09-16-2003	Yoo et al.	
	US	6628685	B1	09-30-2003	Chan-Long Shieh	
	US	6642070	B2	11-14-2003	Jiang et al.	
	US	6653158	B2	11-25-2003	Hall et al.	
	US	2002/ 0067748	A1	06-06-2002	Coldren et al.	
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	US	2002/ 0075920	A1	06-20-2002	Spruytte et al.	
	US	2002/ 0071471	A1	06-13-2002	Kim et al.	
	US	2002/ 0075929	A1	06-20-2002	Cunningham	
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	US	2002/ 0131462	A1	09-19-2002	Line et al.	
	US	2003/ 0086463	A1	05-08-2003	Shin et al.	
	US	2003/ 0053510	A1	03-20-2003	Yuen et al.	
	US	2003/ 0103543	A1	06-05-2003	Moser et al.	
	US	2003/ 0118067	A1	06-26-2003	Johnson	



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		US 2003/011 8069	A1	06-26-2003	Johnson	
		US 2003/012 3501	A1	07-03-2003	Johnson	
		US 2003/ 0123511	A1	07-03-2003	Johnson	
		US 2003/013 4448	A1	07-17-2003	Ju et al.	
		US 2003/ 0156610	A1	08-21-2003	Kwon	
		US 2003/015 6611	A1	2-21-2003	Kwon	
		US 2003/ 0156616	A1	08-21-2003	Kwon	
		US 2003/ 0157739	A1	08-21-2003	Jiang et al.	
		US 2003/ 0231680	A1	12-18-2003	Dariusz Burak	

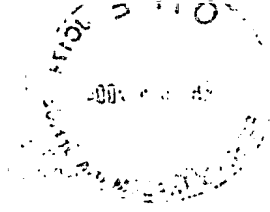
Examiner Signature		Date Considered	
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¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 4 Of 8

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

FOREIGN PATENT DOCUMENTS

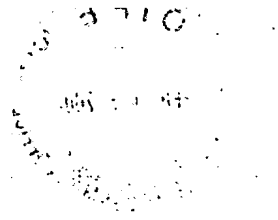
Examiner Initials*	Cite No ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
		EP	0 740 377	A1	10-30-1996	Hewlett-Packard Company		
		EP	0 740 377	B	10-30-1996	Hewlett-Packard Company		
		EP	0 765 014	A1	03-26-1997	France Telecom		
		EP	0 765 014	B1	07-28-1999	France Telecom		
		EP	0 822 630	A1	02-04-1998	Hewlett-Packard Company		
		EP	0 874 428	A2	10-28-1998	Motorola, Inc.		
		EP	0 874 428	A3	11-04-1998	Motorola, Inc.		
		EP	0 874 428	B1	15-04-1998	Motorola, Inc.		
		EP	0 975 073	A1	01-26-2000	NEC Corporation		
		EP	0 999 621	B1	11-04-1999	Jayaraman et al.		
		EP	1 294 063	A1	03-19-2003	Avalon Photonics AG		
		JP	57026492	A	02-12-1982	NEC Corp.		
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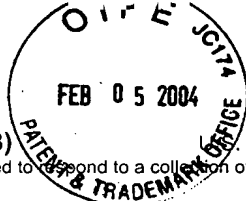
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Sheet 5 Of 8

COMPLETE IF KNOWN

Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

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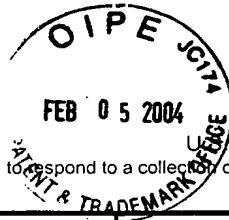
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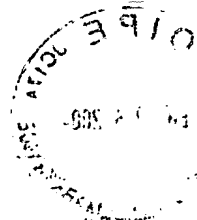
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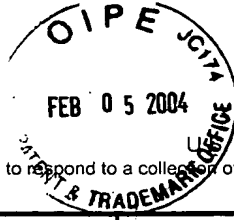
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Sheet 72 Of 8

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Application Number	10/078,473
Filing Date	2-21-02
First Named Inventor	Ho Ki Kwon
Group Art Unit	2828
Examiner Name	Dung T. Nguyen
Attorney Docket Number	H0002992

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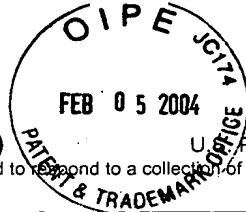
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First Named Inventor	Ho Ki Kwon
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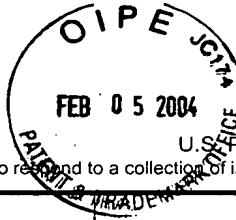
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Attorney Docket Number	H0002992

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
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		WO	01/63708	A2	8-30-2001	Boucart et al.		X
		EP	0 715 357	A1	6-5-1996	McDermott		X
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Application Number	10/078, 473
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10/078, 473

Filing Date	2/21/2002
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2/21/2002

First Named Inventor	Ho Ki Kwon
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Ho Ki Kwon

Group Art Unit	2828
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2828

Examiner Name	Dung T. Nguyen
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Dung T. Nguyen

Attorney Docket Number | H0002992

H0002992

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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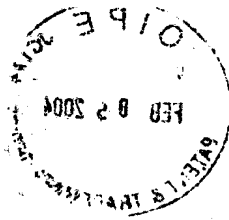
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